Nortel CS1000M Release 4.0 using T1 QSIG to Cisco Unified Communications Manager 6.0 and Cisco Emergency Responder 2.0

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July 11, 2007 Initial version

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Introduction

The following is an Application Note for E911 Interoperability of a Cisco Unified Communications Manager 6.0 and Cisco Emergency Responder 2.0 to a Nortel CS1000M Succession 4.0 PBX via a Cisco Media Module CMM T1-QSIG trunk. The CUCM system is connected to a simulated E911 PSAP (Public Safety Answering Point) via a Cisco 3845 w/ CAMA trunk registered using H323.

The Network Topology diagram shows the test set-up for interoperability between the Cisco Unified Communications Manager and Cisco Emergency Responder connected to the PBX via a T1 QSIG trunk using Cisco WS-SVC-CMM-6T1 MGCP gateway and connection to E911 PSAP using a Cisco 3825 H323 gateway via a CAMA trunk.

Network Topology

Figure 1. Network Topology or Test Setup
Limitations

Unique DID numbers must be used to associate with each Emergency Response Location to allow the return call if the 911 caller is disconnected.
Each available calling party that might dial 911 from the PBX side must have that calling party number configured in the Manually Configured Phones screen of the Cisco Emergency Responder.

System Components

Hardware Requirements

Cisco Hardware

Cisco 3825 Gateway with VIC2-4FXO (CAMA trunk)
Cisco WS-SVC-CMM-6T1 Communications Media Module (inserted into cat6K)
Cisco Cat6K switch
Cisco Unified Communications Manager server
Cisco Emergency Responder server
Nortel Succession PBX

Software Requirements

IOS Software release “c3825-ipvoice-mz.124-11.T”
IOS Software release “wsclmm-ipvoicek9-mz.124-11.T”
PBX Software: Version 4.0
Cisco Unified Communications Manager 6.0
Cisco Emergency Responder 2.0

Features

Features Supported

Calling Number
E911 ERL DID number passed to PSAP
Incoming DID calling to disconnected 911 originating caller
Configuration

Configuring Cisco Unified Communications Manager

Partitions

Find and List Partitions - Microsoft Internet Explorer

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System  Call Routing  Media Resources  Voice Mail  Device  Application  User Management  DM Administration  Help

Find and List Partitions
Add/Modify  Select All  Clear All  Delete Selected

Status
2 records found

Partition (1 - 2 of 2)  Rows per Page 50

Find Partition where Name  begins with  find  Clear Filter  up down

<table>
<thead>
<tr>
<th>Number</th>
<th>Partition Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DS11</td>
<td>DS11</td>
</tr>
<tr>
<td>2</td>
<td>Phones</td>
<td>Phones</td>
</tr>
</tbody>
</table>

Add/Modify  Select All  Clear All  Delete Selected
Phone Partition

Partition Configuration - Microsoft Internet Explorer

| Status | Ready |

Partition Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Phones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Phones</td>
</tr>
<tr>
<td>Time Schedule</td>
<td>None</td>
</tr>
<tr>
<td>Time Zone</td>
<td>Originating Device</td>
</tr>
</tbody>
</table>

Save | Delete | Reset | Add New

* indicates required item.

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## Calling Search Space

### Find and List Calling Search Spaces

<table>
<thead>
<tr>
<th>Find Calling Search Space where</th>
<th>Description</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS Name begin with</td>
<td>PhoneCSS</td>
<td></td>
</tr>
<tr>
<td>PhoneCSS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Status

2 records found

<table>
<thead>
<tr>
<th>Add New</th>
<th>Select All</th>
<th>Clear All</th>
<th>Delete Selected</th>
</tr>
</thead>
</table>

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CSS phones

Calling Search Space Configuration - Microsoft Internet Explorer

- Status
  - Status: Ready

- Calling Search Space Information
  - Name: Phones_CSS
  - Description: Phones_CSS

- Route Partitions for this Calling Search Space
  - Available Partitions: Fill
  - Selected Partitions: Phones

* indicates required item.
**Selected Partitions are ordered by highest priority

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CSS E911

Calling Search Space Configuration - Microsoft Internet Explorer

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System  Call Routing  Media Resources  Voice Mail  Device  Application  User Management  Bulk Administration  Help

Calling Search Space Configuration

Status
Status: Ready

Calling Search Space Information
Name: EWICS
Description:

Route Partitions for this Calling Search Space
Available Partitions:**

Selected Partitions:
**En1
Phones

Save  Delete  Copy  Add New

- Indicates required item.
**Selected Partitions are ordered by highest priority

Done

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### CCM IP phones

#### Phone Configuration - Microsoft Internet Explorer

**Phone Configuration**

- **Association Information**
  - 1: Device 1 - 9911 in Phones
  - 2: Device 2 - 9911 in Phones
  - 3: Add a new SD
  - 4: Add a new SD
  - 5: Add a new SD
  - 6: Add a new SD
  - 7: Add a new SD
  - 8: Add a new SD
  - 9: Add a new SD
  - 10: Add a new SD

- **Phone Type**
  - Product Type: Cisco 7960
  - Device Protocol: SCCP

- **Device Information**
  - Registration: Registered with Cisco Unified Communications Manager CH-BARRA
  - IP Address: 172.20.410.959
  - MAC Address: 01001100111
  - Description: Device 9911
  - Device Protocols: Default
  - Common Device Configuration: Migrated Common Device Config
  - Phone Button Template: Standard 7960 SCCP
  - SFX File Template: Standard User_CallBack
  - Common Phone Profile: Standard Common Phone Profile
  - Calling Search Space: PhoneCSS
  - AAR Calling Search Space: < Note >
  - Media Resource Group-List: < Note >
  - User-Defined Audio Source: < Note >
  - Network Hold MHK Audio Source: < Note >
  - Location: < Note >
  - AAR Group: < Note >
  - User Locale: < Note >
  - Network Locale: < Note >
  - Dial In Bridge: Default
  - Privacy: Default
  - Device Mobility Mode: Default
  - Owner User ID: < Note >
  - Phone Load Name: 

#### Status
- Status: Ready

---

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Cisco Unified CM Administration

Phone Configuration

External Data Locations Information (Leave blank to use default)

- Directory
- Messages
- Services
- Authentication Server
- Proxy Server
- Idle
- Idle Timer (seconds)

Extension Information

- Enable Extension Mobility
- Log Out Profile: [Use Current Device Settings]
- Log In Time: [None]
- Log Out Time: [None]

MLP Information

- MLP Domain: [None]
- MLP Indication: [Default]
- MLP Preservation: [Default]

Do Not Disturb

- [Do Not Disturb]
- [环路]
- [DND Options:]
- [Ringer Off]
- [None]

Product Specific Configuration Layout

- [Enable Speakerphone]
- [Enable Speakerphone and Headset]
- [PC Port]

Settings Access
- [Enable]
- [Unauthorized 407]
- [Enabled]
- [PC Voice VLAN Access]
- [Enabled]
- [Video Capabilities]
- [Disabled]
- [Auto Line Select]
- [Enabled]
- [Web Access]
- [Enabled]
### Directory Number Configuration - Microsoft Internet Explorer

### Cisco Unified CM Administration

#### For Cisco Unified Communications Solutions

**System** | **CM Rating** | **Media Resources** | **Voice Mail** | **Device** | **Application** | **User Management** | **Bulk Administration** | **Help**
---|---|---|---|---|---|---|---|---

### Directory Number Configuration

**Call Forward and Call Pickup Settings**

<table>
<thead>
<tr>
<th>Calling Search Space Activation Policy</th>
<th>Voice Mail</th>
<th>Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward All</td>
<td></td>
<td></td>
<td>Use System Default</td>
</tr>
<tr>
<td>Secondary Calling Search Space for Forward All</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy Internal</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Busy External</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer Internal</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Answer External</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Coverage Internal</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward No Coverage External</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward on CTI Failure</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Unregistered Internal</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
<tr>
<td>Forward Unregistered External</td>
<td></td>
<td></td>
<td>&lt;None&gt;</td>
</tr>
</tbody>
</table>

#### No Answer Ring Duration (seconds)

**Call Pickup Group**

**NLPP Alternate Party Settings**

<table>
<thead>
<tr>
<th>Target (Destination)</th>
<th>NLPP Calling Search Space</th>
<th>NLPP No Answer Ring Duration (seconds)</th>
</tr>
</thead>
</table>

**Line Settings for All Devices**

<table>
<thead>
<tr>
<th>Hold Reverse Ring Duration (seconds)</th>
<th>Hold Reverse Ring Notification Interval (seconds)</th>
</tr>
</thead>
</table>

**Line 1 on Device SEP000A416B8529**

| Display (Internal Caller ID) | Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller. |

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### CTI Route Points

#### Find and List CTI Route Points

<table>
<thead>
<tr>
<th>Device Name</th>
<th>Description</th>
<th>Device Pool</th>
<th>Calling Search Space</th>
<th>Partition</th>
<th>Extension</th>
<th>Status</th>
<th>IP Address</th>
<th>Copy</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP011</td>
<td></td>
<td>Default</td>
<td></td>
<td>Phones</td>
<td>911</td>
<td>Registered with CM-BARZA</td>
<td>172.26.110.254</td>
<td></td>
</tr>
<tr>
<td>RP011</td>
<td></td>
<td>Default</td>
<td></td>
<td>Phones</td>
<td>911</td>
<td>Registered with CM-BARZA</td>
<td>172.26.110.254</td>
<td></td>
</tr>
</tbody>
</table>

Status: 2 records found
CTI Route Point 911

CTI Route Point Configuration - Microsoft Internet Explorer

Status

Device Information

<table>
<thead>
<tr>
<th>Registration</th>
<th>Registered with Cisco Unified Communications Manager CM-BAR2A</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Address</td>
<td>172.20.110.254</td>
</tr>
<tr>
<td>Device Name</td>
<td>BP911</td>
</tr>
<tr>
<td>Description</td>
<td>BP911</td>
</tr>
<tr>
<td>Device Pool</td>
<td>Default</td>
</tr>
<tr>
<td>Common Device Configuration</td>
<td>Mobility/Config/DeviceConfig1</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>Mobility/Config/DeviceConfig1</td>
</tr>
<tr>
<td>Location</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>User Locale</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Media Resource Group List</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Network-Optimized Audio Source</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>User-Optimized Audio Source</td>
<td>&lt; None &gt;</td>
</tr>
</tbody>
</table>

Association Information

**Line 1** - Add a new CTI

Save  Delete  Copy  Reset  Add New

* indicates required item.
### Directory Number Information

<table>
<thead>
<tr>
<th>Directory Number</th>
<th>Route Partition</th>
<th>Description</th>
<th>Alerting Name</th>
<th>ASCII Alerting Name</th>
<th>Associated Devices</th>
<th>Dissociated Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>911</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Directory Number Settings

- **Voice Mail Profile**: &lt;Name&gt; (Choose &lt;Name&gt; to use system default)
- **Calling Search Space**: EM1CSS
- **Presence Group**: Standard Presence Group
- **User Hold MHL Audio Source**: &lt;Name&gt;
- **Network Hold MHL Audio Source**: &lt;Name&gt;

### AAR Settings

<table>
<thead>
<tr>
<th>AAR</th>
<th>Voice Mail</th>
<th>AAR Destination Mask</th>
<th>AAR Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>&lt;Name&gt;</td>
<td>&lt;Name&gt;</td>
</tr>
</tbody>
</table>

- **AAR**: Retain this destination in the call-forwarding history

### Call Forward and Call Pickup Settings

<table>
<thead>
<tr>
<th>Voice Mail</th>
<th>Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Forwarding Policy</td>
<td>&lt;Name&gt;</td>
<td>Use System Default</td>
</tr>
</tbody>
</table>

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### Cisco Unified CM Administration

**Directory Number Configuration**

#### Voice Mail
- **Calling Search Space Activation Policy**
  - Forward All
    - Use System Default
    - < None >
- **Secondary Calling Search Space for Forward All**
  - < None >
- **Forward Busy Internal**
  - 912
  - EP11CSS
- **Forward Busy External**
  - 912
  - EP11CSS
- **Forward No Answer Internal**
  - 912
  - EP11CSS
- **Forward No Answer External**
  - 912
  - EP11CSS
- **Forward No Coverage Internal**
  - 912
  - < None >
- **Forward No Coverage External**
  - 912
  - < None >
- **Forward on CTI Failure**
  - 912
  - EP11CSS
- **Forward Unregistered Internal**
  - 912
  - EP11CSS
- **Forward Unregistered External**
  - 912
  - EP11CSS

#### Call Pickup Group
- **No Answer Ring Duration (seconds)**
- < None >

### NLPP Alternate Party Settings
- **Target (Destination)**
- **MUPP Calling Search Space**
  - < None >
  - EP11CSS
- **MUPP No Answer Ring Duration (seconds)**

### Line Settings for All Devices
- **Hold Reversion Ring Duration (seconds)**
- Setting the Hold Reversion Ring Duration to zero will disable the feature
- **Hold Reversion Notification Interval (seconds)**
- Setting the Hold Reversion Notification Interval to zero will disable the feature

### Line 1 on Device 8891
- **Display (Internal Caller ID)**
- **ASCII Display (Internal Caller ID)**
  - Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

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Multiple Call/Call Waiting Settings on Device RP911

Note: The range to select the Max Number of calls is 1-10000

Maximum Number of Calls:

<table>
<thead>
<tr>
<th>Busy Tone</th>
<th>Max 10000</th>
</tr>
</thead>
</table>

Forwarded Call Information Display on Device RP911

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

Users Associated with Line

- Associate End Users

Save  Delete  Reset  Add New

* indicates required item.
** Changes to Line or Directory Number settings require restart.

 Done
CTI Route Point 913

Device Information
- Registered with Cisco Unified Communications Manager CM-BARZA
- IP Address: 172.20.110.254
- Device Name: RPLN913

Association Information
- Line [11]: 9998000000 in F911
- Line [21]: Add a new CTI

Status: Ready

* indicates required item.
Note: A Backup CER server was not used during testing therefore CTI route point for 912 was not created.
## Directory Number Configuration

### Directory Number Information

<table>
<thead>
<tr>
<th>Directory Number</th>
<th>4050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Partition</td>
<td>Phones</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>Alerting Name</td>
<td></td>
</tr>
<tr>
<td>AaI Alerting Name</td>
<td></td>
</tr>
<tr>
<td>Associated Devices</td>
<td>CSE12</td>
</tr>
<tr>
<td>Associate Devices</td>
<td></td>
</tr>
</tbody>
</table>

### Directory Number Settings

<table>
<thead>
<tr>
<th>Voice Mail Profile</th>
<th>&lt; None &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calling Search Space</td>
<td>PhoneCSS</td>
</tr>
<tr>
<td>Presence Group</td>
<td>Standard Presence group</td>
</tr>
<tr>
<td>User Hold MOH Audio Source</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Network Hold MOH Audio Source</td>
<td>&lt; None &gt;</td>
</tr>
</tbody>
</table>

### AAR Settings

<table>
<thead>
<tr>
<th>AAR</th>
<th>Voice Mail</th>
<th>AAR Destination Name</th>
<th>AAR Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>&lt; None &gt;</td>
</tr>
</tbody>
</table>

**Call Forward and Call Pickup Settings**

<table>
<thead>
<tr>
<th>Call Forward</th>
<th>Voice Mail</th>
<th>Destination</th>
<th>Calling Search Space</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Local Interact</td>
</tr>
</tbody>
</table>

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### Directory Number Configuration

**Calling Search Space Activation Policy**
- Forward All
- Secondary Calling Search Space for Forward All
- Forward Busy Internal
- Forward Busy External
- Forward No Answer Internal
- Forward No Answer External
- Forward No Coverage Internal
- Forward No Coverage External
- Forward on CTI Failure
- Forward Unregistered Internal
- Forward Unregistered External

**No Answer Ring Duration (seconds)**

**MLP Alternate Party Settings**
- Target (Destination)
- MLP Calling Search Space
- MLP No Answer Ring Duration (seconds)

**Line Settings for All Devices**
- Hold Reversion Ring Duration (seconds)
- Hold Reversion Notification Interval (seconds)

**Line 1 on Device CERSec1**
- Display (Internal Caller ID)
- ASCII Display (Internal Caller ID)
- Line Text Label

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## Route Patterns for ELINs

### Find and List Route Patterns

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Description</th>
<th>Partition</th>
<th>Route Filter</th>
<th>Associated Device</th>
<th>Cops</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0.1.1</td>
<td>ELIN</td>
<td>ELIN</td>
<td>172.16.0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.5.12</td>
<td>ELIN</td>
<td>ELIN</td>
<td>172.16.0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.12.12</td>
<td>ELIN</td>
<td>ELIN</td>
<td>172.16.0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>234</td>
<td></td>
<td>E911</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4005</td>
<td></td>
<td>E911</td>
<td>140.014.105.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>415001</td>
<td></td>
<td>E911</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4200</td>
<td></td>
<td>E911</td>
<td>172.16.0.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7033</td>
<td></td>
<td>E911</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.3.99</td>
<td></td>
<td>E911</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.12</td>
<td></td>
<td>E911</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>0.33</td>
<td></td>
<td>E911</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Status

- Records found: 5
Route Pattern 10911

<table>
<thead>
<tr>
<th>Route Pattern Configuration - Microsoft Internet Explorer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status</strong> Update Successful</td>
</tr>
<tr>
<td><strong>Pattern Definition</strong></td>
</tr>
<tr>
<td>Route Pattern: 10911</td>
</tr>
<tr>
<td>Route Partition: EN11</td>
</tr>
<tr>
<td>Description:</td>
</tr>
<tr>
<td>Numbering Plan: Not Selected</td>
</tr>
<tr>
<td>Route Filter: &lt; Name &gt;</td>
</tr>
<tr>
<td>PRI Prio Precedence: Default</td>
</tr>
<tr>
<td>Gateway/Route List: 152.20.66.64</td>
</tr>
<tr>
<td>Route Option: Route this pattern</td>
</tr>
<tr>
<td>Call Classification: off hook</td>
</tr>
<tr>
<td>Call Allow Device Override: Provide Outside Dial Tone</td>
</tr>
<tr>
<td>Call Allow Overlay Sending: Urgent Priority</td>
</tr>
<tr>
<td>Call Require Forced Authorization Code:</td>
</tr>
<tr>
<td>Call Require Client Matter Code:</td>
</tr>
<tr>
<td><strong>Calling Party Transformations</strong></td>
</tr>
<tr>
<td>Use Calling Party's External Phone Number Mask:</td>
</tr>
<tr>
<td>Calling Party Transforms:</td>
</tr>
<tr>
<td>Call Routing Digits:</td>
</tr>
<tr>
<td>Calling Line ID Presentation: Allowed:</td>
</tr>
<tr>
<td>Calling Name Presentation: Default:</td>
</tr>
<tr>
<td><strong>Connected Party Transformations</strong></td>
</tr>
<tr>
<td>Connected Line ID Presentation: Default:</td>
</tr>
<tr>
<td>Connected Name Presentation: Default:</td>
</tr>
<tr>
<td><strong>Called Party Transformations</strong></td>
</tr>
<tr>
<td>Discard Digits:</td>
</tr>
<tr>
<td>Called Party Transform Mask:</td>
</tr>
<tr>
<td>Prefix Digits (Outgoing Calls):</td>
</tr>
<tr>
<td><strong>ISDN Network-Specific Facilities Information Element</strong></td>
</tr>
<tr>
<td>Network Service Protocol: P01.N21</td>
</tr>
<tr>
<td>Carrier Identification Code:</td>
</tr>
<tr>
<td>Foreign Exchange Selection:</td>
</tr>
<tr>
<td>Foreign Exchange:</td>
</tr>
</tbody>
</table>

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Route Pattern 13911

Route Pattern Configuration - Microsoft Internet Explorer

Status
Update successful

Pattern Definition
Route Pattern: 13911
Route Partition: 0678
Description: 
Numbering Plan: Default
Route Filter: 
P#P Precedence: Default
Gateway.Route List: 172.30.0.56
Route Priority: Edit
Call Classification: Off

Allow Device Override: Provide Outside Dial Tone: Allow Overlay Sending: Urgent Priority: 
Require Forced Authorization Code: 
Authorization Level: 
Require Client Matter Code: 

Calling Party Transformations
Use Calling Party’s External Phone Number Mask: 
Calling Party Transform Mask: 
Prefix Digits (Outgoing Calls): 
Calling Line ID Presentation: Allowed
Calling Name Presentation: Default

Connected Party Transformations
Connected Line ID Presentation: Default
Connected Name Presentation: Default

Called Party Transformations
Success Digits: 0
Called Party Transform Mask: 
Prefix Digits (Outgoing Calls): 

ISDN Network-Specific Facilities Information Element
Network Service Protocol: P01/IE2
Network Service: Service Parameter Name: 
Carrier Identification Code: 
Foreign Exchange Selection: Foreign Exchange

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Translation Pattern for ELINs

**Translation Pattern Configuration**

- **Status**: Status Ready

**Pattern Definition**
- **Translation Pattern**: 4088273xxx
- **Partition**: EN11
- **Description**: 
- **Numbering Plan**: N (None)
- **Route Filter**: N (None)
- **PRIUP Precedence**: Default
- **Calling Search Space**: EN11000
- **Route Option**: Route this pattern
- **Outgoing Dial Time**: 
- **Urgent Priority**: 

**Calling Party Transformations**
- **Use Calling Party’s External Phone Number Mask**: 
- **Calling Party Transform Mask**: 
- **Prefix Digits (Outgoing Calls)**: 
- **Calling Line ID Presentation**: Default
- **Calling Name Presentation**: Default

**Connected Party Transformations**
- **Connected Line ID Presentation**: Default
- **Connected Name Presentation**: Default

**Called Party Transformations**
- **Discard Digits**: N (None)
- **Called Party Transform Mask**: 
- **Prefix Digits (Outgoing Calls)**: 

**Done**

---

*indicates required item.
PSAP Gateway configuration (CAMA TRUNK)

<table>
<thead>
<tr>
<th>Status</th>
<th>Status Ready</th>
</tr>
</thead>
</table>

### Device Information

- **Product**: Cisco Unified Communications Manager
- **Device Protocol**: H.323 Gateway
- **Registration Protocol**: Unknown
- **IP Address**: 172.20.8.26
- **Device Name**: 172.20.8.26
- **Description**: 172.20.8.26
- **Device Pool**: Default
- **Common Device Configuration**: None
- **Call Classification**: Use System Default
- **Media Resource Group List**: None
- **Packet Capture Mode**: None
- **Packet Capture Duration**: 0
- **Location**: Hub(Main)
- **AAA Group**: None
- **Tunneled Protocol**: None
- **Signaling Port**: 1720

- **Media Termination Point Required**
- **Retry Video Call As Audio**
- **Wait for Far End H.245 Terminal Capability Set**
- **Path Replacement Support**
- **Transmit TFTP for Calling Party Name**
- **GRTP Allowed**

### Multilevel Precedence and Preemption (MLPP) Information

- **MLPP Domain**: None
- **MLPP Indication**: Not available on this device
- **MLPP Preemption**: Not available on this device
### Call Routing Information - Inbound Calls

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant Digits</td>
<td>All</td>
</tr>
<tr>
<td>Calling Search Space</td>
<td>E911CSS</td>
</tr>
<tr>
<td>AAR Calling Search Space</td>
<td>&lt; None &gt;</td>
</tr>
<tr>
<td>Prefix DN</td>
<td></td>
</tr>
</tbody>
</table>

- **Redirecting Number 3E Delivery - Inbound**
- **Enable Inbound FastStart**

### Call Routing Information - Outbound Calls

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calling Party Selection</td>
<td>Original</td>
</tr>
<tr>
<td>Calling Party Presentation</td>
<td>Default</td>
</tr>
<tr>
<td>Called party ID number type unknown</td>
<td>Cisco CallManager</td>
</tr>
<tr>
<td>Called party ID number type unknown</td>
<td>Cisco CallManager</td>
</tr>
<tr>
<td>Called Numbering Plan</td>
<td>Cisco CallManager</td>
</tr>
<tr>
<td>Caller Numbering Plan</td>
<td>Cisco CallManager</td>
</tr>
<tr>
<td>Caller ID DN</td>
<td></td>
</tr>
</tbody>
</table>

- **Display ID Delivery**
- **Redirecting Number 3E Delivery - Outbound**
- **Enable Outbound FastStart**

- **Codec for Outbound FastStart**: 0711 www 64K

---

**Notes:**
- * indicates required item.
- ** indicates Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.

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### Gateway Configuration

**Delay between restarts (in sections)**: 4

- **Inhibit events at PRI initialization**
- **Unattended Port**

### Call Routing Information - Inbound Calls

- **Signaling Digit**: All
- **Calling Search Space**: PhonesCSS
- **A4/A5 Calling Search Space**: <none>
- **Prefix DN**: <none>

### Call Routing Information - Outbound Calls

- **Calling Party Selection**: Default
- **Called party IE number type unknown**: Cisco CallManager
- **Called party IE number type known**: Cisco CallManager
- **Called Numbering Plan**: Cisco CallManager
- **Called Numbering Plan**: Cisco CallManager
- **Number of digits to strip**: 0
- **Caller ID DN**: <none>
- **SMDI base part**: 0

### PRI Protocol Type Specific Information

- **Display IE Delivery**: No
- **Redirecting Number IE Delivery - Outbound**: No
- **Redirecting Number IE Delivery - Inbound**: No
- **Send Leading Character in Display IE**: No
- **Setup non-3270 Progress Indicator IE Enable**: No
- **MCCH Channel Number Extension Bit Set to Zero**: No
- **Send Calling Name In Facility IE**: No
- **Interface Identifier Present**: No
### Gateway Configuration

- **Save**
- **Cancel**
- **Reset**

#### System
- **CM Routing**
- **Media Resources**
- **Voice Mail**
- **Device**
- **Application**
- **User Management**
- **Bulk Administration**
- **Help**

#### Gateway Configuration

- **Save**
- **Cancel**
- **Reset**

#### UUIE Configuration

- **Passing Precedence Level Through UUIE**
- **Security Access Level**

#### Product Specific Configuration Layout

<table>
<thead>
<tr>
<th>Setting</th>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Coding</td>
<td>BIS</td>
<td></td>
</tr>
<tr>
<td>Framing</td>
<td>PPP</td>
<td></td>
</tr>
<tr>
<td>Clock</td>
<td>External</td>
<td></td>
</tr>
<tr>
<td>Input Gain (6.14 db)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Attenuation (6.14 db)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Echo Cancellation Enable</td>
<td>Enable</td>
<td></td>
</tr>
<tr>
<td>Echo Cancellation Coeff</td>
<td>0.64</td>
<td></td>
</tr>
</tbody>
</table>

- * indicates required item.
- ** applies to DMG-150 protocol only.
- *** applies to DMG-300 protocol and DMG-250 protocol only.
- **** may be required to force ringback from some PBXs.
- ***** Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.
Route Pattern to QSIG Trunk

Note: For detailed information regarding QSIG interoperability between CCM and NEC PBX go to:

SNMP service must be active

**Performance and Monitoring Services**

<table>
<thead>
<tr>
<th>Service Name</th>
<th>Activation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Serviceability Reporter</td>
<td>Activated</td>
</tr>
<tr>
<td>Cisco CallManager SNMP Service</td>
<td>Activated</td>
</tr>
</tbody>
</table>
Configuring Cisco Emergency Responder

Cisco Unified Communications Manager Details

### Modify Cisco Unified Communications Manager Cluster

<table>
<thead>
<tr>
<th>CTI Manager *</th>
<th>172.20.110.254</th>
<th>Cisco Unified Communications Managers List</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTI Manager User Name *</td>
<td>certest</td>
<td></td>
</tr>
<tr>
<td>CTI Manager Password *</td>
<td>password</td>
<td></td>
</tr>
<tr>
<td>Backup CTI Manager 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backup CTI Manager 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephony Port Begin Address</td>
<td>4250</td>
<td></td>
</tr>
<tr>
<td>Number of Telephony Ports</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Secure Connection Parameters**

- Enable Secure Connection **
- TFTP Server IP Address **
- TFTP Server Port **
- Backup TFTP Server IP Address **
- CARP Server IP Address **
- CARP Server Port **
- Instance ID for Publisher **
- Secure Authentication String for Publisher **

[Update] [Cancel Changes]

### Cisco Unified Communications Manager Clusters

<table>
<thead>
<tr>
<th>172.20.110.254</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Add New]</td>
</tr>
</tbody>
</table>

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### Specify server group attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco ER Group Name</td>
<td>CERServerGroup</td>
</tr>
<tr>
<td>Peer TCP Port</td>
<td>17901</td>
</tr>
<tr>
<td>Heartbeat Count</td>
<td>0</td>
</tr>
<tr>
<td>Heartbeat Interval (in sec)</td>
<td>30</td>
</tr>
<tr>
<td>Active Call Time out (in min)</td>
<td>369</td>
</tr>
<tr>
<td>SMTP Mail Server</td>
<td></td>
</tr>
<tr>
<td>Source Mail ID</td>
<td></td>
</tr>
<tr>
<td>System Administrator Mail ID</td>
<td></td>
</tr>
<tr>
<td>Syslog</td>
<td>disable</td>
</tr>
<tr>
<td>Syslog Server</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td></td>
</tr>
</tbody>
</table>

- * indicates required item
- ** required if SMTP Mail Server is configured
- *** required if Syslog is enabled
Telephony Settings

Specify telephony attributes

Route Point for Primary Cisco ER Server

Route Point for Standby Cisco ER Server

PSTN Callback Route Point Pattern

EUN Digit Strip Pattern

UDP Port Range

Enter Cisco ER Group Route Pattern

IP Type of service (0-FF)

Onsite Alert Prompt Repeat Count

Use IP Address from call signaling

* indicates required item
### ERLs List

#### Find ERL Data

**Status**
- Ready

**ERL Search Parameters**
- Find ERL where
  - ERL Name
  - Contains
  - Find and show
  - 20 items per page

#### ERL Table

<table>
<thead>
<tr>
<th>ERL</th>
<th>Route/Translation Pattern-ELIN</th>
<th>Onsite Alert ID</th>
<th>Street Name</th>
<th>Community Name</th>
<th>State</th>
<th>Edit</th>
<th>Copy</th>
<th>Delete</th>
<th>Audit Trail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default</td>
<td>109311-4600</td>
<td>nevada</td>
<td>nevada</td>
<td>ca</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test 1</td>
<td>10931-6085278</td>
<td>nevada</td>
<td>nevada</td>
<td>ca</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test 2</td>
<td>10931-6085278</td>
<td>nevada</td>
<td>nevada</td>
<td>ca</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Configure Default ERL**
- Add New ERL

---

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### ERL Information for test 2

#### ERL Settings

- **ERL Name**: test 2
- **Description**: 
- **Test ERL (Used for Synthetic Testing)**: 

#### ELIN Settings

- **Route/Translation pattern**: 11911
- **ELIN**: 4005274201

#### Onsite Alert Settings

- **Available Onsite Alert IDs**: 
- **Onsite Alert IDs for the ERL**: 

#### ERL Address

- **ALI Details**: 

* * indicates required item*
### ERL Information for test 3

#### ERL Settings

<table>
<thead>
<tr>
<th>ERL Name *</th>
<th>test 3</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Test ERL (Used for Synthetic Testing)</th>
</tr>
</thead>
</table>

#### ELIN Settings

<table>
<thead>
<tr>
<th>Route/Translation pattern</th>
<th>13911</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Add</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Update</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>13911-4085274203</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Remove</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>FLIN</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>4085274203</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Add</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Update</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Remove</th>
</tr>
</thead>
</table>

#### Onsite Alert Settings

<table>
<thead>
<tr>
<th>Available Onsite Alert IDs</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Add</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Remove</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Onsite Alert IDs for the ERL</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Add</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Remove</th>
</tr>
</thead>
</table>

#### ERL Address

<table>
<thead>
<tr>
<th>ALI Details</th>
<th>Edit ALI</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Update</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Copy</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Cancel Changes</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Close</th>
</tr>
</thead>
</table>

* indicates required item
SNMP connection

Modify SNMP Community Setting
- **IP Address/Host Name**: 172.20.8.20
  - **Timeout (in seconds)**: 10
  - **Maximum Retry Attempts**: 2
  - **Read Community**: public

SNMP Settings
- **Add New**

<table>
<thead>
<tr>
<th>IP Address/Host Name</th>
<th>Timeout (in seconds)</th>
<th>Maximum Retry Attempts</th>
<th>Read Community</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>172.20.8.20</td>
<td>10</td>
<td>2</td>
<td>public</td>
<td></td>
</tr>
</tbody>
</table>

* indicates required item
**LAN Switch identifying**

**Cisco Emergency Responder Administration** for Cisco Unified Communications Solutions

**LAN Switch Details**

<table>
<thead>
<tr>
<th>Status</th>
<th>Please enter any change for the current LAN Switch</th>
</tr>
</thead>
</table>

**LAN Switch Details**

- **Switch Host Name/ IP Address**: 172.20.0.20
- **Description**: [ ]
- **Enable CNM based Phone Tracking**: [ ]

**LAN Switches**

<table>
<thead>
<tr>
<th>Switch Host Name/IP Address</th>
<th>Edit</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>172.20.0.20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Add LAN Switch

---

* indicates required item
## Switch Port Details

<table>
<thead>
<tr>
<th>IP Address</th>
<th>Status</th>
<th>VLAN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/20</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/21</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/22</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/23</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/24</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/25</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/26</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/27</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/28</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/29</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/30</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/31</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/32</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/33</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/34</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/35</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/36</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/37</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/38</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/39</td>
<td></td>
</tr>
<tr>
<td>172.20.0.20</td>
<td></td>
<td>3/40</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Loading search results may take time. Please wait.
### Defining Manual Phones (PBX Stations)

#### Find and List Manually Configured Phones

**Manual Phone Search Parameters**

Find manual phones where Line Number contains ____________ and show 20 ____________ items per page.

#### Manually Configured Phones (1 - 2 of 2)

<table>
<thead>
<tr>
<th>Line Number</th>
<th>Line Name</th>
<th>IP Address</th>
<th>MAC Address</th>
<th>Location</th>
<th>Edit</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>4009</td>
<td>Test 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4004</td>
<td>Test 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Add new Manual phone
Cisco CMM IOS Gateway MGCP configuration for QSIG connectivity

tonycmm#sh run

Building configuration...

Current configuration : 2077 bytes
!
version 12.4
no service pad
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname tonycmm
!
boot-start-marker
boot system bootflash:wscmm-ipvoicek9-mz.124-11.T.bin
boot-end-marker
!
logging buffered 10000000
no logging console
enable password cisco
!
no aaa new-model
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
!
!
no ip domain lookup
ip host CM-BARZA 172.20.110.254
multilink bundle-name authenticated
!
isdn switch-type primary-qsig
!
!
!
!
!
!
!
controller T1 1/0
  pri-group timeslots 1-24 service mgcp

controller T1 1/1

controller T1 1/2

controller T1 1/3

controller T1 1/4

controller T1 1/5

interface GigabitEthernet1/0
  ip address 172.20.8.253 255.255.255.0
  no ip proxy-arp
  no negotiation auto
  no keepalive

interface Serial1/0:23
  no ip address
  encapsulation hdlc
  no logging event link-status
  isdn switch-type primary-qsig
  isdn protocol-emulate network
  isdn incoming-voice voice
  isdn bind-l3 ccm-manager
no cdp enable

! ip default-gateway 172.20.8.1 ip route 0.0.0.0 0.0.0.0 172.20.8.1

! no ip http server
no ip http secure-server
!

control-plane
!
!
voice-port 1/0:23
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server CM-BARZA
ccm-manager config
!
mgcp
mgcp call-agent CM-BARZA 2427 service-type mgcp version 0.1
mgcp dtmf-relay voip codec all mode out-of-band
mgcp rtp unreachable timeout 1000 action notify
mgcp modem passthrough voip mode nse
mgcp package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-package
mgcp package-capability pre-package
no mgcp timer receive-rtcp
mgcp sdp simple
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static
!
mgcp profile default
!
!
! line con 0
  password cisco
  transport output all
line vty 0 4
  exec-timeout 0 0
  password cisco
  login
  transport input all
  transport output all
  
end
tonycmm#

Cisco 3825 Cisco IOS Gateway H323 configuration for CAMA trunk connectivity
CAMA_GW#sh run
Building configuration...

Current configuration : 1241 bytes
!
version 12.4
  service timestamps debug datetime msec
  service timestamps log datetime msec
  no service password-encryption
!
  hostname CAMA_GW
!
  boot-start-marker
  boot-end-marker
!
enable password cisco
!
no aaa new-model
ip cef
!
!
!
!
multilink bundle-name authenticated
!
voice-card 0
no dspfarm
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
interface GigabitEthernet0/0
  ip address 172.20.8.26 255.255.255.0
duplex auto
speed auto
media-type rj45
no keepalive
!
interface GigabitEthernet0/1
  no ip address
  shutdown
duplex auto
speed auto
media-type rj45
no keepalive
!
ip route 0.0.0.0 0.0.0.0 172.20.8.1
!
ip http server
  no ip http secure-server
!
!
!
!
control-plane
!
!
!
!
voice-port 0/2/0
  signal cama KP-0-NPA-NXX-XXXX-ST
dial-type mf
timing hookflash-out 500
description CAMA
!
voice-port 0/2/1
! voice-port 0/3/0
!
! voice-port 0/3/1
!
!
!
!
!
!

! dial-peer voice 911 pots
  destination-pattern 911
  no digit-strip
  port 0/2/0
  forward-digits all
!
! dial-peer voice 999 voip
  description Call-in PSTN simulation
  destination-pattern .T
  session target ipv4:172.20.110.254
!
!
!

! line con 0
  password cisco
  login
  stopbits 1
line aux 0
  stopbits 1
line vty 0 4
  password cisco
  login
!
scheduler allocate 20000 1000
!
end
CAMA voice-port config

CAMA_GW#sh voice port 0/2/0

Foreign Exchange Office 0/2/0 Slot is 0, Sub-unit is 2, Port is 0
Type of VoicePort is FXO
Operation State is DORMANT
Administrative State is UP
The Last Interface Down Failure Cause is Administrative Shutdown
Description is CAMA
Noise Regeneration is enabled
Non Linear Processing is enabled
Non Linear Mute is disabled
Non Linear Threshold is -21 dB
Music On Hold Threshold is Set to -38 dBm
In Gain is Set to 0 dB
Out Attenuation is Set to 3 dB
Echo Cancellation is enabled
Echo Cancellation NLP mute is disabled
Echo Cancellation NLP threshold is -21 dB
Echo Cancel Coverage is set to 64 ms
Echo Cancel worst case ERL is set to 6 dB
Playout-delay Mode is set to adaptive
Playout-delay Nominal is set to 60 ms
Playout-delay Maximum is set to 250 ms
Playout-delay Minimum mode is set to default, value 40 ms
Playout-delay Fax is set to 300 ms
Connection Mode is normal
Connection Number is not set
Initial Time Out is set to 10 s
Interdigit Time Out is set to 10 s
Call Disconnect Time Out is set to 60 s
Ringing Time Out is set to 180 s
Wait Release Time Out is set to 30 s
Companding Type is u-law
Region Tone is set for US

Analog Info Follows:
Currently processing none
Maintenance Mode Set to None (not in mtc mode)
Number of signaling protocol errors are 0
Impedance is set to 600r Ohm
Station name None, Station number None
Translation profile (Incoming):
Translation profile (Outgoing):

Voice card specific Info Follows:
Signal Type is cama
Cama Type is KP-0-NPA-NXX-XXXX-ST
Battery-Reversal is enabled
Number Of Rings is set to 1
Supervisory Disconnect is signal
Answer Supervision is inactive
Hook Status is On Hook
Ring Detect Status is inactive
Ring Ground Status is inactive
Tip Ground Status is inactive
Dial Out Type is mf
Digit Duration Timing is set to 75 ms
InterDigit Duration Timing is set to 65 ms
Pulse Rate Timing is set to 10 pulses/second
InterDigit Pulse Duration Timing is set to 750 ms
Percent Break of Pulse is 60 percent
GuardOut timer is 2000 ms
Minimum ring duration timer is 125 ms
Hookflash-in Timing is set to 600 ms
Hookflash-out Timing is set to 500 ms
Supervisory Disconnect Timing is set to 350 ms
OPX Ring Wait Timing is set to 6000 ms

CAMA_GW#

**Configuring the Cisco Catalyst 6000**

Console> (enable) sh snmp
SNMP:                Enabled
RMON:                Disabled
Extended RMON Netflow Enabled : None.
Memory usage limit for new RMON entries: 85 percent
EngineId: 00:00:00:09:00:01:97:31:c8:00:00:00
Chassis Alias:      
Traps Enabled:       None
Port Traps Enabled:  None

<table>
<thead>
<tr>
<th>Community-Access</th>
<th>Community-String</th>
</tr>
</thead>
<tbody>
<tr>
<td>read-only</td>
<td>public</td>
</tr>
<tr>
<td>read-write</td>
<td>private</td>
</tr>
<tr>
<td>read-write-all</td>
<td>secret</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional-Community-String</th>
<th>Access-Type</th>
<th>Number</th>
<th>View</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Trap-Rec-Address</th>
<th>Trap-Rec-Community</th>
<th>Trap-Rec-Port</th>
<th>Trap-Rec-Owner</th>
<th>Trap-Rec-Index</th>
</tr>
</thead>
</table>

Console> (enable) sh cdp
CDP                : enabled
Message Interval : 60
Hold Time : 180
Version : V2
Device Id Format : Other
Console> (enable)

set interface sc0 109 172.20.8.20/255.255.255.0 172.20.8.255
Configuring the Nortel CS1000M with Succession 4.0 Software Release PBX

Common Equipment

REQ prt
TYPE cequ

CEQU
MPED 8D
SUPL 000 004 008 012
  016 032 036 040
  044 048 064 068
  072 V096 V100
TDS 000
CONF 029 030 031 062
  094 095

DLOP NUM DCH FRM TMDI LCMT YALM T1TE TRSH
PRI 02 24 ESF NO B8S FDL - 00
  06 23 ESF NO B8S FDL - 00
PRI2 04 05 07
DTI2
MISP

Configure D-Channel

REQ prt
TYPE adan dch 4

ADAN  DCH 4
CTYP MSDL
CARD 04
PORT 1
DES toJupiter
USR PRI
DCHL 4
OTBF 32
PARAM RS422 DTE
DRAT 64KC
CLOK EXT
IFC ISGF
PNUM_CUST 0
ISDN_MCNT 300
CLID OPT0
CO_TYPE STD
SIDE USR
CNEG 2
RLS ID 4
QCHID YES
RCAP COLP NDI CCBI CCNI PRI DV3I CTI QMNI
PR_TRIGS DIV 2 3
  CON 0 1
CTR1 2 3
MBGA NO
OVLR NO
OVLS NO
T310 120
T200 3
T203 10
N200 3
N201 260
K 7
Configure Route Data Block

REQ: prt

TYPE: rdb

CUST 0

ROUT 104

TYPE RDB
CUST 00
DMOD
ROUT 104
DES TOJUPITER
TKTP TIE
NPID_TBL_NUM 0
ESN NO
CNVT NO
SAT NO
RCLS EXT
VTRK NO
NODE
DTRK YES
BRIP NO
DGTP PRI2
ISDN YES
MODE PRA
IFC ISGF
SBN NO
PNI 00001
NCNA NO
NCRD NO
CTYP UKWN
INAC NO
ISAR NO
CFXFS YES
DAFC NO
INTC NO
DSEL VCD
PTYP DTT
AUTO NO
DNIS NO
DCDR NO
ICOG IAO
SRCR LIN
TRMB YES
STEP
ACOD 204
TCPF NO
TARG 01
CLEN 1
BILN NO
OABS
INST
ANTK
SIGO STD
ICIS YES
TIMR ICF 512
OGF 512
EOD 13952
NRD 10112
DDL 70
ODT 4096
RGV 640
Configure Trunk

REQ: prt

TYPE: tnb

TN   4 1

DATE

PAGE

DES

DES  TOJUPITER
TN  004 01
TYPE  TIE
CDEN  SD
CUST  0
TRK  PRI2
PDCA  1
PCML  A
NCOS  0
RTMB  104 1
B-CHANNEL SIGNALING
TGAR  1
AST   NO
IAPG  0
CLS   UNR DTN WTA LPR APN THFD
      F10  VNL

Software Release

>LD 22

PT2000
MARP NOT ACTIVATED

ld 22
PT2000

REQ iss

CALL SERVER/MAIN CAB
VERSION 2121
RELEASE 4
ISSUE 00 T +
IDLE_SET DISPLAY NORTEL
REQ ****
>

Software package Installed (Succession 4.0)

OPTF     1
CUST     2
CDR      4
CTY      5
RAN      7
TAD      8
DNDI     9
EES      10
INTR     11
ANI      12
ANIR     13
BRTE     14
DNDG     16
MSB      17
SS25     18
DDSP     19
ODAS     20
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CHG      23
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BAUT     25
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CASR     27
BQUE     28
NTRP     29
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CPRK     33
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NSC      39
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ACDC  42
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MUS  44
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TBAR  132
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DCON  140
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ISL   147
NTWK  148
IEC   149
DNXP  150
CDRE  151
FXS   152
IAP3P 153
PRI12 154
THF   157
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NAS   159
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MINT  163
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NMS   175
EOVF  178
HVS   179
DKS   180
SACP  181
VNS   183
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EDRG  185
POVR  186
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ORC_RVQ 192
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IPRA  202
XFE   203
XCT0  204
XCT1  205
MLWU  206
HSE   208
MIM   209
MAID  210
VWU   212
EAR   214
ECT   215
BRI   216
IVR   218
MWI   219
MSDL  222
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SSAU  229
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<th>Definitions</th>
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<td>Analog &quot;Centralized Automatic Message Accounting&quot; E911 Trunk</td>
</tr>
<tr>
<td>PSAP</td>
<td>Public Service Answering Point</td>
</tr>
</tbody>
</table>

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